# Multi Material Flexible Recovery Collaborative

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# Agenda

1. Welcome and industry updates

2. Follow-up discussion from virtual Chemical Recycling Workshop

## Industry updates

- New CEFLEX <u>Designing for a Circular Economy</u>
  <u>Guidelines</u>
- \$31.7 million <u>investment</u> in waste plastics facility/manufacturing operation in VA

#### Industry updates

- GAIA report:
  Chemical
  Recycling:
  Technical
  Assessment
- Chemical recycling is not at present, and is unlikely to be in the next ten years, an effective form of plastic waste management.
- With the need to dramatically reduce global fossil fuel consumption, chemical recycling appears, in fact, to represent a dangerous distraction
- Multiple pathways to adverse environmental impact exist and these are grossly under-assessed.
- Managing these impacts will impose high costs and operational constraints on technology operators.
- Chemical recycling is energy intensive and has multiple intrinsic and ancillary energy demands which render it unsuitable for consideration as a sustainable technology. No chemical recycling technology can currently offer a net-positive energy balance.
- Much greater transparency on operational performance, energy balances, and environmental impact assessment must be provided as standard.

# Continued - Discussion from virtual Chemical Recycling Workshop

# Objective

Provide a list of the major points to be expressed in our narrative on our website for people to react to.

## Last time - Terminology

- "Advanced Recycling" to external stakeholder this is meant to be the broadest term whereas "chemical" is not true for all technologies, e.g. purification and in response to NGOs/consumer concern over use of term "chemical." This name is primarily meant to appease external stakeholders outside of industry.
- Within industry, conversation is more nuanced we use "mechanical" and "chemical" "feedstock" "enhanced" and other terms. What is industry hiring this term to do for us? Internally, we can continue to say 'chemical'.

# Continued - Defining recycling

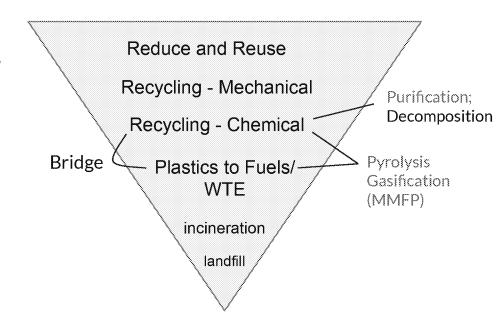
- Recycling brings material to the market. Any process that achieves this is recycling. The term includes both mechanical and chemical. processes.
- For chemical recycling we must consider fate of the materials. CR is recycling depending on the market uses for its outputs. Everything but fuels counts.
- Differentiate the different technologies. Purification or depolymerization processes are clearly recycling by any definition since they produce polymers or monomers. Conversion technology depends on end market uses.

# The waste hierarchy/other frameworks

- The hierarchy lists recovery in terms of "best and highest use" reflects
  EPA's Sustainable Materials Management framework.
- There is some misunderstanding about the waste hierarchy If there is a way to recover something that is the best option available, why does the hierarchy matter?
- The circular economy is also about recovering the highest value possible but conveys using loops and material ecosystems with less focus on ranking.
- We should also discuss circularity. We should socialize an understanding of why circular and recyclable don't have to put products back into exactly what they came from, since CR output can go towards many different things/i.e. many loops.

# The waste hierarchy/other frameworks

- CR belongs somewhere near mechanical recycling - above or below depends on output and environmental impact
- Chemical recycling is recycling, and so should go above composting.
- Conversion technologies fall in between recycling and PTF



#### Future meeting ideas

The role of better design - speaker idea: CEFLEX, APR

Tracking and tracing CR outputs - speaker ideas: ISCCC, RMS

Environmental impacts of chemical recycling technologies - speaker ideas: Closed Loop Partners or SPC

Considerations for policymakers - speaker ideas: state officials working on legislation

Collection as an enabler - speaker ideas: RedCycle, MRFF

What about mechanical recycling? - speaker ideas: Ecomats, Rewall

What about composting? - combined session with Compostable Packaging Collaborative